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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,695	09/29/2000	Richard A. Haase	0170SS:44632	1492

7590 01/11/2002

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EXAMINER

HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
1724	13

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13

DATE MAILED: 01/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MK-13

Office Action Summary

Application No.

09/675,695

Applicant(s)

HAASE, RICHARD A.

Examiner

Peter A. Hruskoci

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) [X] Responsive to communication(s) filed on 4-26, 5-21, 8-24, 10-17 and 11-26-01.
2a) [ ] This action is FINAL. 2b) [X] This action is non-final.
3) [ ] Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) [X] Claim(s) 20-67 is/are pending in the application.
4a) Of the above claim(s) 41-50 is/are withdrawn from consideration.
5) [ ] Claim(s) \_\_\_ is/are allowed.
6) [X] Claim(s) 20-40 and 51-67 is/are rejected.
7) [ ] Claim(s) \_\_\_ is/are objected to.
8) [X] Claim(s) 20-67 are subject to restriction and/or election requirement.

Application Papers

- 9) [X] The specification is objected to by the Examiner.
10) [ ] The drawing(s) filed on \_\_\_ is/are: a) [ ] accepted or b) [ ] objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) [ ] The proposed drawing correction filed on \_\_\_ is: a) [ ] approved b) [ ] disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
12) [ ] The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) [ ] Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) [ ] All b) [ ] Some \* c) [ ] None of:
1. [ ] Certified copies of the priority documents have been received.
2. [ ] Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. [ ] Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
\* See the attached detailed Office action for a list of the certified copies not received.
14) [ ] Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) [ ] The translation of the foreign language provisional application has been received.
15) [ ] Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) [X] Notice of References Cited (PTO-892)
2) [ ] Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) [X] Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
4) [ ] Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
5) [ ] Notice of Informal Patent Application (PTO-152)
6) [ ] Other:

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 20-40, and 51-67, drawn to a process for clarifying water, classified in class 210, subclass 728.
- II. Claims 41-48, drawn to a method for blending polymers, classified in class 252, subclass 181.
- III. Claims 49 and 50, drawn to a method for storing chemicals, classified in class 137, subclass 1.

2. The inventions are distinct, each from the other because of the following reasons:

The process of Group I does not require the methods of Groups II and III; the method of Group II does not require the process of Group I or the method of Group III; and the method of Group III does not require the process of Group I or the method of Group II.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Robert M. Bowick on 12-24-01 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-40, and 51-67. Affirmation of this election must be made by applicant in replying to this Office action. Claims 41-50 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. The disclosure is objected to because of the following informalities: In the specification on page 3 line 13 "9I", on page 18 line 12 "Methacryloyioxyethyltrimethyl", and on page 46 line 17 "Unites" appear to be erroneous.

Appropriate correction is required.

6. Claim 57 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. It is submitted that the addition of the aluminum salt as recited in claim 57 appears to be recited in claims 51, 52, 53, and 54 .

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: It is submitted that the ratios recited in claims 20-23 lack clear antecedent basis in the specification.

8. Claims 20-25, 28, 29, 51-59, 61, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 20-22 "greater than 1/20", in claim 20 "greater than 1/60", and in claims 21-23 "greater than 1/150" are vague and indefinite because it is unclear how these terms further limit the claims. In claims 24,

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25, 55, and 56 “the settled water”, and in claims 28, 29, and 51-54 “the raw unclarified water” lack clear antecedent basis.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 20-22, 24-26, 28-33, 51-53, 55-59, and 61 rejected under 35 U.S.C. 103(a) as being unpatentable over Hassick et al. 4,800,039. Hassick et al. disclose (see col. 1 line 31 through col. 3 line 51, and Table I) a process for clarification of water substantially as claimed. It is noted Table I of Hassick et al. discloses that it is known in the art of water treatment to utilize a combination of aluminum chlorohydrate or alum, and DADMAC to clarify water. The claims differ from Hassick et al. by reciting that the polymers are added in specific weight ratios, and have a specific molecular weight. It is submitted that the ratios and polymers disclosed in Hassick et al. are considered patentably indistinguishable from the ratios and polymers recited in the instant claims, and would appear to include the instant ratios and molecular weights. It would have been obvious to one skilled in the art of water treatment to modify the process of Hassick et al. by utilizing the recited ratios and polymers, to aid in clarifying the water. The specific

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residual soluble aluminum and IOC contents, alkalinity, and NTU of the water, ratios, and molecular weights utilized, and the addition of an aluminum salt, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific water treated and results desired, absent a sufficient showing of unexpected results.

11. Claims 35, 40, 62, and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassick et al. as above, and further in view of Graham et al.. The claims differ from Hassick et al. as applied above by reciting that the process includes the addition of ozone to remove TOC and/or DOC, and algae. Graham et al. disclose (see col. 5 line 5 through col. 6 lines 38) that it is known in the art of water to utilize ozone to aid in removing DOC and algae from water. It would have been obvious to one skilled in the art to modify the process of Hassick et al. as applied above, by addition of ozone in view of the teachings of Graham et al., to aid in removing DOC and algae from the water.

12. Claims 36, 38, 63, 64, and 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hassick et al. as above, and further in view of Reilly et al.. The claims differ from Hassick et al. as applied above by reciting that the process includes the removal of algae. Reilly et al. disclose (see col. 8 line 50 through col. 11 line 45) that it is known in the art of water to utilize aluminum salts and ammonium polymers such as DADMAC to aid in removing algae and turbidity from water. It would have been obvious to one skilled in the art to utilize the process of Hassick et al. as applied above, to

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remove algae from the water in view of the teachings of Reilly et al., to aid in clarifying the water.

13. Claims 23-29, 32, 54-57, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kigel et al.. Kigel et al. disclose (see col. 5 line 5 through col. 8 line 11) a process for clarification of water substantially as claimed. The claims differ from Kigel et al. by reciting that the polymers are added in specific weight ratios, and the water has a specific turbidity. It is submitted that the ratios and turbidity or suspended solids content of the water disclosed in Kigel et al. are considered patentably indistinguishable from the ratios and water recited in the instant claims, and would appear to include the instant ratios and turbidity. It would have been obvious to one skilled in the art of water treatment to utilize the process of Kigel et al. to treat water having the recited turbidity with the recited polymers, to aid in clarifying the water. The specific residual soluble aluminum and IOC contents, alkalinity, and NTU of the water, ratios utilized, and the addition of an aluminum salt, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific water treated and results desired, absent a sufficient showing of unexpected results.

14. Claims 34, 35, 37, 39, 40, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kigel et al. as above, and further in view of Simmsgeiger. The claims differ from Kigel et al. as applied above by reciting that polyacrylamide contains

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quaternized nitrogen, and the process includes the addition of ozone and the removal of algae. Simmsgeiger disclose (see col. 3 line 8 through col. 6 line 20) that it is known in the art of water to utilize cationic polyacrylamide and ozone to aid in removing algae and turbidity from water. It would have been obvious to one skilled in the art to modify the process of Kigel et al. as applied above, by addition of the recited polyacrylamide and ozone in view of the teachings of Simmsgeiger, to aid removing algae and in clarifying the water.

15. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hassick et al. in view of Reilly et al. as above, and further in view of Buchan et al.. The claim differs from the references as applied above by reciting that the process includes the addition of an algaecide. Buchan et al. disclose (see col. 10 line 27 through col. 12 line 68) that it is known in the art of water to utilize aluminum salts, polymer flocculants, and algaecides, to aid in removing algae and solid impurities from water. It would have been obvious to one skilled in the art to modify the references as applied above, by addition of an algaecide in view of the teachings of Buchan et al., to aid in removing algae from the water.

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645



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(Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 20-22, 24-26, 28-33, 36-38, 51-53, 55-59, are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,120,690. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process steps recited in the instant claims appear to be included in the claims of the patent.

18. It is requested that applicant verify the accuracy of Tokumitsu 5,546,056 cited on the PTO-1449.


19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (703) 308-3839. The examiner can normally be reached on Monday through Friday from 6:30 AM to 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached on (703) 308-1972. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

  
**Peter A. Hruskoci**  
**Primary Examiner**  
**Art Unit 1724**

P. Hruskoci  
January 9, 2002